Miscellaneous 1999 Archeological Compliance Activities

Richmond National Battlefield Park
Cold Harbor and Beaver Dam Creek Units
Hanover County, Virginia

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MANAGEMENT SUMMARY

Investigations to determine the potential effects on archeological resources of three ground disturbing activities at the Cold Harbor and Beaver Dam Creek units of Richmond National Battlefield Park were conducted in 1999. At the Beaver Dam Creek Unit, investigations indicated that removal of the existing overlook will not impact any archeological resources. At the Cold Harbor Unit, investigations in support of the planting of a tree screen to obscure the view of a newly constructed residence outside of the park determined that no archeological resources will be effected by its installation. At the Garthright House at the Cold Harbor Unit, investigations in support of designing a new drainage system identified an historic strutum with an embedded paving that most likely dates to the nineteenth century and is a contributing resource to the National Register eligibility of the property under Criterion D. No additional work is recommended for the removal of the overlook at the Beaver Dam Creek Unit or for planting of the tree screen at the Cold Harbor Unit. Additional Phase II investigations at the Garthwright House at the Cold Harbor Unit to determine the extent of the identified paving and determine the effect of its removal is strongly recommended.

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1 INTRODUCTION

Richmond National Battlefield Park is located within and around the city of Richmond, Virginia and was established by Congress in 1936 for the preservation of the battlefields and earthworks associated with its role as the Confederate Capital from 1861 to 1865. The entire park is listed on the National Register of Historic Places. In 1999, the park proposed three actions to improve the visitor experience and enhance preservation of both historic structures and landscapes. At Beaver Dam Creek, demolition of the existing overlook would remove a modern intrusion. At Cold Harbor, planting of a vegetative screen of mature trees would block visitor's views of a recently constructed house immediately adjacent to Confederate earthworks. At the Garthright House, also at the Cold Harbor Unit, establishment of a swale along the southern margin of the structure would improve drainage and reduce moisture damage to the frame portion of the structure. In accordance with the National Historic Preservation Act of 1966 as amended, and the provisions of the Programmatic Agreement between the National Park Service, the National Council of State Historic Preservation Officers, and the Advisory Council for Historic Preservation (PA), proposed actions were reviewed for their potential effect on the integrity of the archeological resources that contribute to the property's National Register eligibility. Review of each project resulted in the recommendation for Phase I archeological testing which are the subjects of this report.

Data Collection Procedures: Archeological investigations were conducted in accordance with the National Park Service's "Secretary's Standards for Archeology." Soil profiles were documented during excavation by photography and measured drawings. Tests were excavated to sterile soil or to the interface with suspected historic features, with all soils passed through one-quarter inch hardware cloth. Soil colors were recorded using the Munsell soil color system. Curatorial activities were conducted in accordance with the NPS's *Museum Handbook*. All materials associated with this project are curated at Richmond National Battlefield Park. All activities associated with this project were conducted by the author.

2 BEAVER DAM CREEK

Richmond National Battlefield Park proposes to remove the overlook and a small portion of the fill soils at the Beaver Dam Creek Unit (Figure 1). Constructed in 1966, the overlook is built of brick with cement paving (Figures 2 and 3). Soils at the location of the overlook have been mapped as Fluquavents (USDA 1980: Sheet 58). These are "deep, poorly drained soils that formed in the sandy, loamy, and clayey alluvium. They are on small flood plains on the Coastal Plainand the Piedmont. Slopes range from 1 to 2 percent…Generally, the A horizon is gray, dark gray, or black. It ranges from loamy

sand to clay loam…In most pedons, the substratum is gray, greenish grey, or bluish gray, with brighter mottles…the substratum below a depth of 40 inches is sand and gravel…in most places these soils are deep to bedrock" (ibid:104).

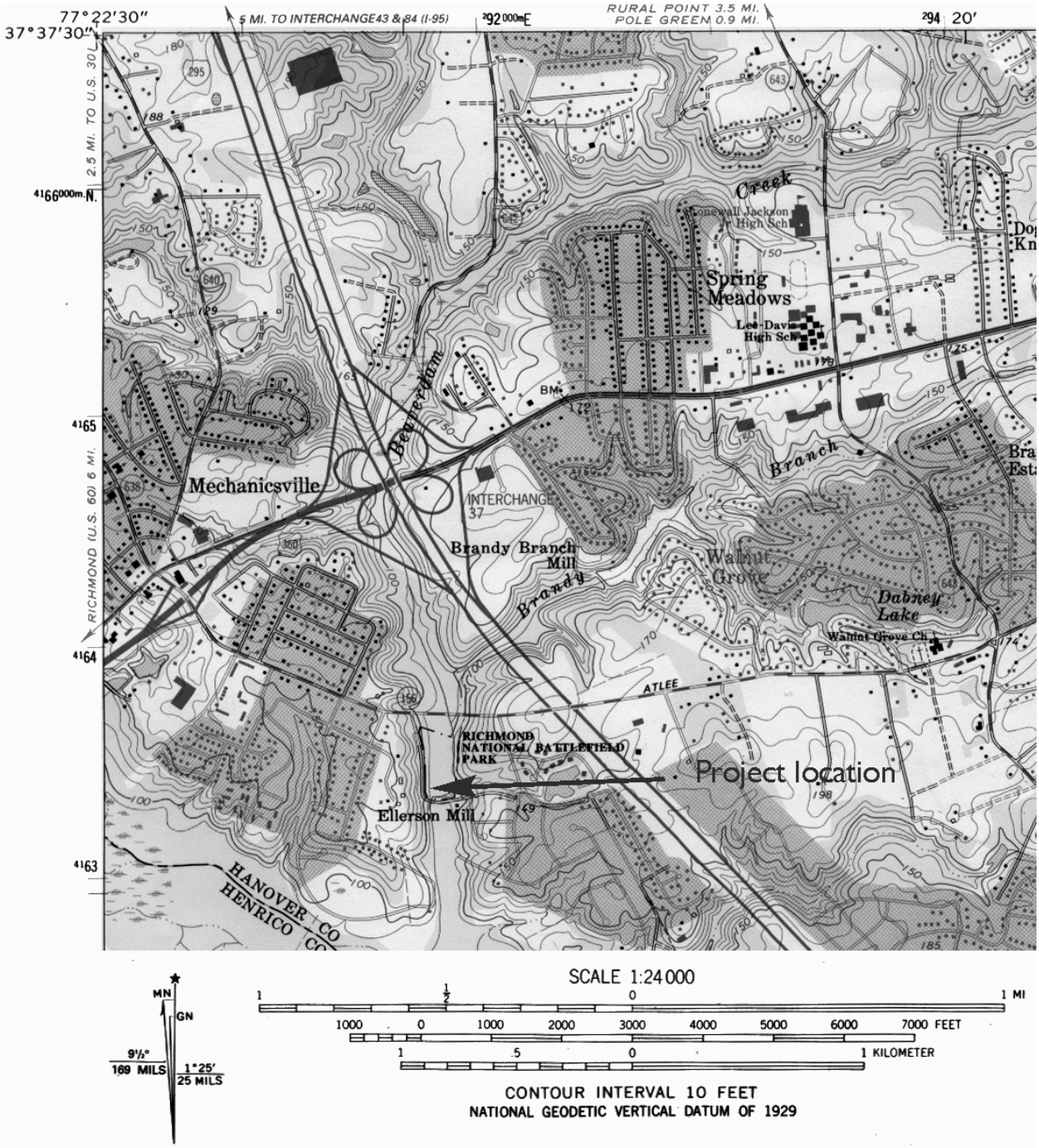

Figure 1: Location of Beaver Dam Creek Unit, Richmond National Battlefield Park. Detail from USGS Hanover Quadrangle 1:24000 Series Topographic.

Figure 2: Existing conditions at Beaver Dam Creek Unit showing overlook.

Figure 3: Beaver Dam Creek Test 5 in progress.

Fill soils were added to create an artificial terrace to support the overlook. To determine the potential effect of the proposed actions, a series of shovel tests were excavated along the eastern margin of the overlook, immediately adjacent to the construction (Figure 4) by the author on May 3, 1999.

Test 1 was located at the northern terminus of the sidewalk. Excavated to a depth of 1.2 feet, it had two strata (Figure 5):

1) 0 - 0.4 feet below surface (fbs) - dark yellowish brown (Munsell 10YR 4/4) silt loam.
2) 0.4 - 1.2 fbs - mixed clay soils; yellowish brown (Munsell 10YR 5/8) and white Munsell 10YR 8/1). Modern glass bottle fragments were noted but not collected.

Test 2 was located 25 feet south of Test 1. It had two strata:

1) 0 - 0.6 fbs - dark yellowish brown (Munsell 10YR 4/4) silt loam. Modern glass bottle fragments were noted but not collected from Stratum 1.
2) 0.6 - 1.3 fbs - mixed clay soils; yellowish brown (Munsell 10YR 5/8) and white (Munsell 10YR 8/1).

Test 3 was located 50 feet south of Test 1. It had two strata:

1) 0 - 0.5 fbs - dark yellowish brown (Munsell 10YR 4/4) silt loam. Modern glass bottle fragments and a pop-top were observed but not collected from Stratum 1.
2) 0.5 - 1.2 fbs - mixed clay soils; yellowish brown (Munsell 10YR 5/8) and white (Munsell 10YR 8/1).

Test 4 was located 75 feet south of Test 1. It had two strata:

1) 0 - 0.5 fbs - dark yellowish brown (Munsell 10YR 4/4) silt loam.
2) 0.5 - 1.3 fbs - mixed clay soils; yellowish brown (Munsell 10YR 5/8) and white (Munsell 10YR 8/1).

Test 5 was located 100 feet south of Test 1 near the northern angle of the overlook. It had two strata:

1) 0 - 0.6 fbs - dark yellowish brown (Munsell 10YR 4/4) silt loam. Modern glass bottle fragments and a wire nail were noted but not collected from Stratum 1.
2) 0.6 - 1.2 feet - mixed clay soils; yellowish brown (Munsell 10YR 5/8) and white (Munsell 10YR 8/1).

Test 6 was located 125 feet south of Test 1. It had two strata:

1) 0 - 0.4 feet - dark yellowish brown (Munsell 10YR 4/4) silt loam with modern glass bottle fragments.
2) 0.6 - 1.3 feet - mixed clay soils; yellowish brown (Munsell 10YR 5/8) and white (Munsell 10YR 8/1).

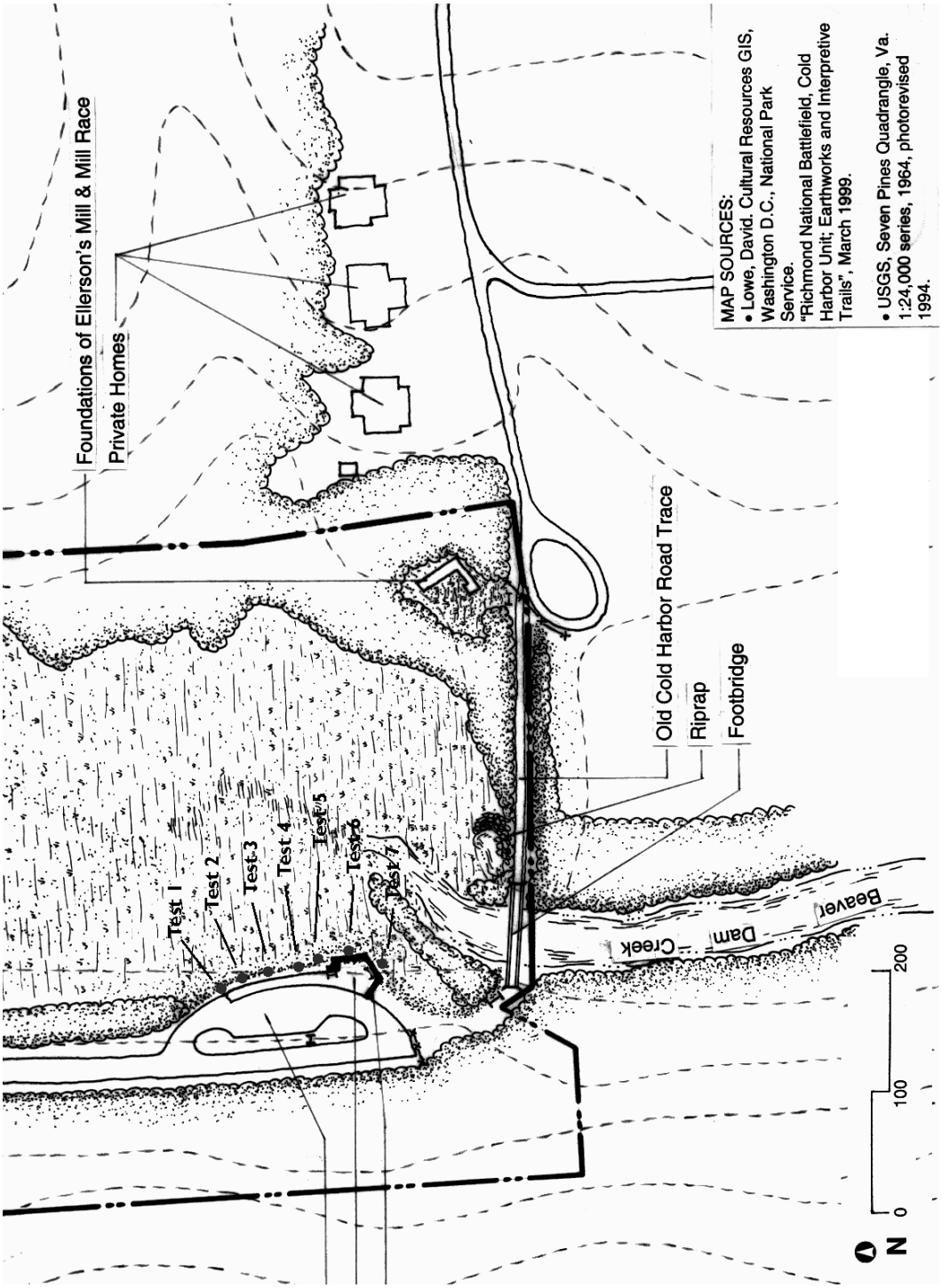

Figure 4: Location of archeological tests at Beaver Dam Creek.

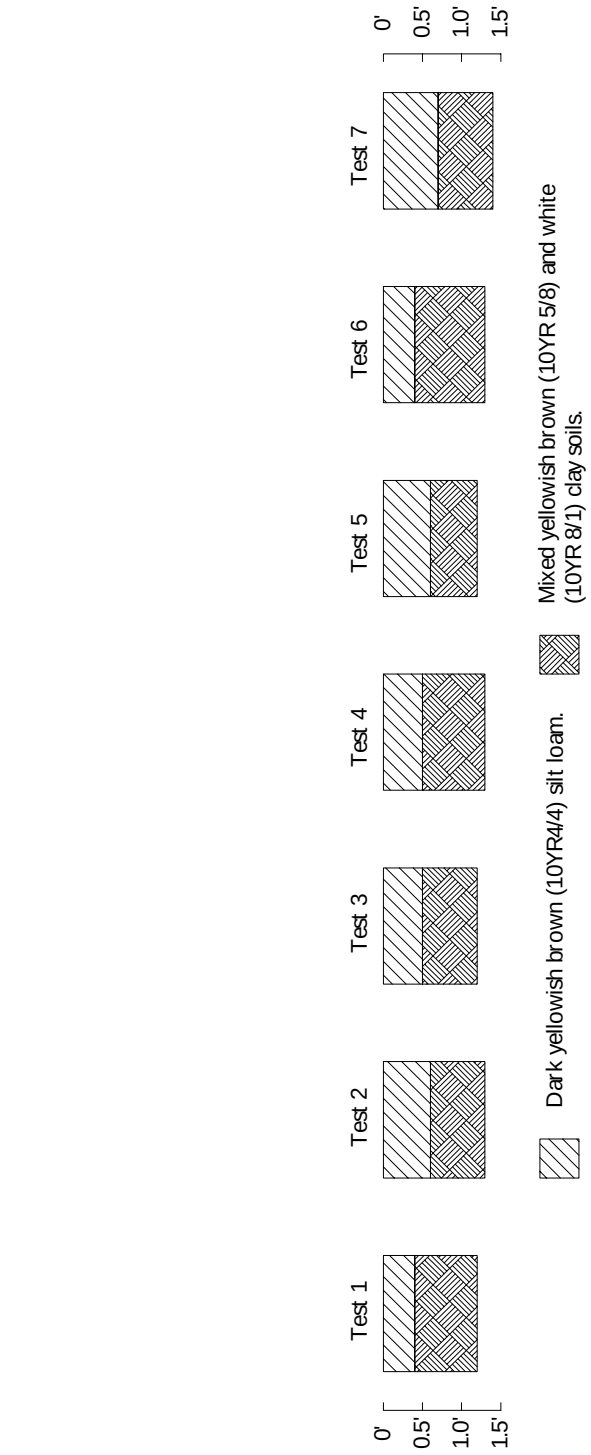

Figure 5: Profiles of archeological tests at Beaver Dam Creek.

Test 7 was located 150 feet south of Test 1. It had two strata:

1) 0 - 0.7 fbs - dark yellowish brown (Munsell 10YR 4/4) silt loam.
2) 0.7 - 1.4 fbs - mixed clay soils; yellowish brown (Munsell 10YR 5/8) and white (Munsell 10YR 8/1).

Results: Excavation of seven shovel tests within the proposed area of impact for removal of the existing overlook at Beaver Dam Creek did not identify any archeological resources associated with the Civil War battle. All excavations exceeded the proposed depth of disturbance and revealed mixed fill soils associated with construction of the overlook in 1966. Soils associated with the pre-construction ground surface were not encountered. The proposed project will have no effect on archeological resources.

3 COLD HARBOR GARTHRIGHT HOUSE

Richmond National Battlefield Park proposes to extend a drainage swale along the south margin of the frame portion of the Garthright House (LCS01231) at the Cold Harbor Unit. The brick core of the Garthright House was constructed around 1720 and was used as a field hospital for both the Battle of Gaines' Mill in 1861 and the Battle of Cold Harbor in 1864 (Figure 6). The house was damaged by fire in 1970 and was restored between 1971 and 1977. Restoration included replacement of much of the original woodwork and changes in the drainage patterns especially on the south and east aspects. HVAC equipment was also installed along the west portion of the south foundation. Remnants of the drainage swale installed in the 1970s appear near the HVAC system, but do not extend the entire length of the structure. Currently, the existing drainage does not adequately drain the frame portion of the structure, requiring extension of the existing swale. Historic photographs indicate that the ground south of the Garthright House was plowed almost to the edge of the house, although apparently not to the location of the proposed swale (Figure 7).

Soils at the Garthright House have been mapped as Orangeburg-Faceville fine sandy loams (USDA 1980: Sheet 59). These soils are fine-loamy, siliceous, thermic Typic Paleudults. They are deep, well-drained soils that have a thick subsoil that consists of mostly of brown, yellowish-red, and red sandy clay loam. Orangeburg soils differ from Faceville by having less clay (ibid: 114).

The proposed project will extend the existing swale west to run the entire length of the south side of the structure, located approximately six feet south of the foundation. To determine the potential effect on archeological resources, a single archeological test unit measuring two feet square was excavated in an area likely to contain intact resources (Figure 8) whose

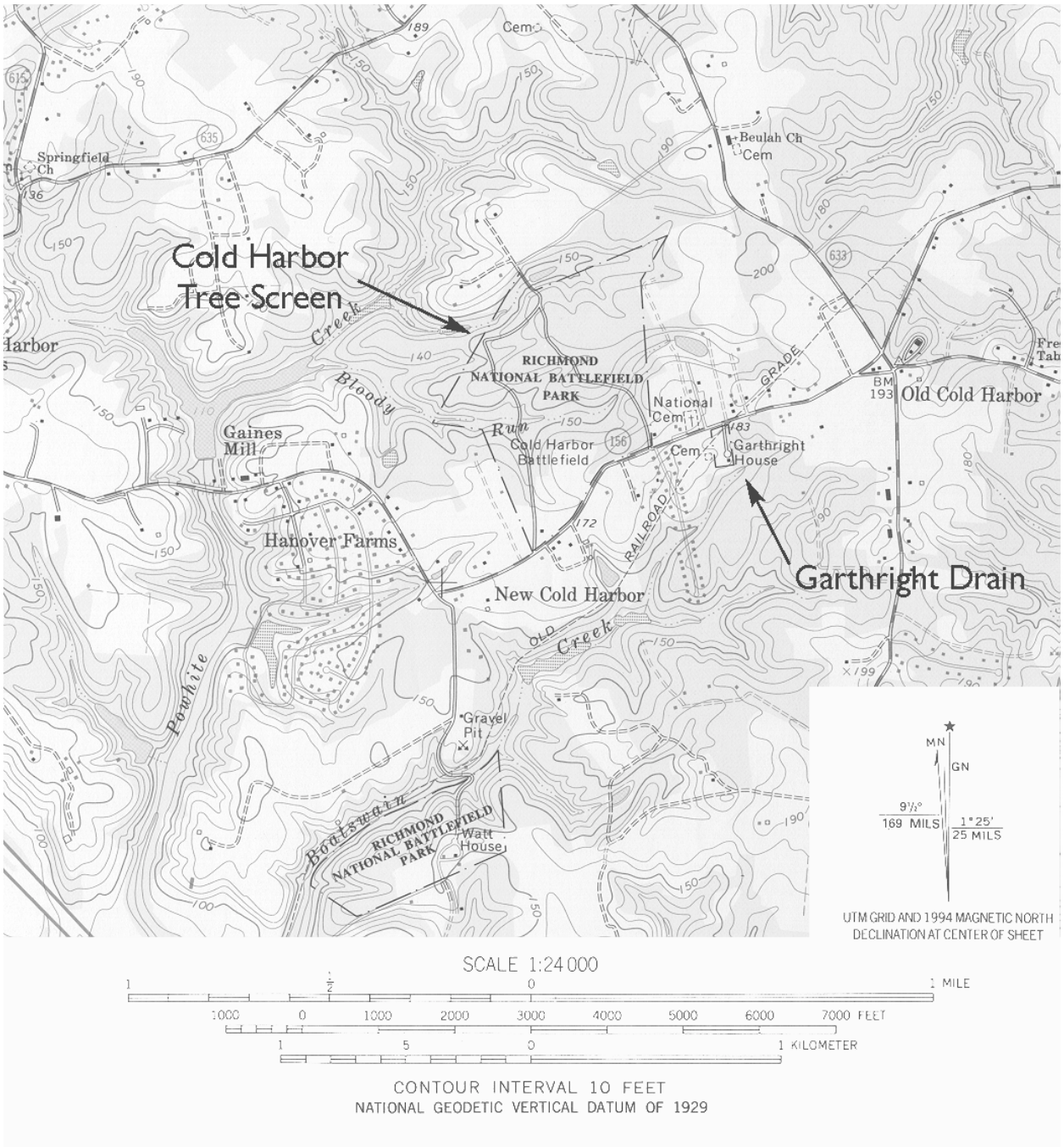

Figure 6: Location of Cold Harbor Unit, Richmond National Battlefield Park. Detail from USGS Hanover Quadrangle 1:24000 Series Topographic.

Figure 7: Historic photograph of rear of Garthright House around 1886.

Figure 8: Photograph showing location of archeological test at the Garthright House.

northwest corner is 6 feet south and 10 feet east of the southwest corner of the house. Excavation was conducted on May 3, 1999 by the author.

Removal of the sod revealed Stratum 1, composed of dark gray (Munsell 10YR 4/1) sandy loam containing medium (>0.1; 0.5<) to small (0.1<) quartzite commercial gravel. Multiple modern artifacts recovered included flat glass, cut nails, and plastic. These were noted in the field and discarded. In the southeast corner Stratum 1 continued deeper where it was designated Feature 1 while the remainder of the unit was designated Stratum 2.

Stratum 2 was defined by dark gray (Munsell 10YR 4/1) sandy loam (which did not contain gravel) and was more compact than Stratum 1. Excavation of Feature 1 revealed it to be a continuation of Stratum 1which contained a nail and a paint can hanger. Again, these artifacts were noted but not retained for curation. It had a flat bottom and was approximately 0.15 feet thick. Excavation revealed it underlain by Stratum 3. Stratum 2 was only 0.15 feet thick and probably represents a continuation (although less severe) of the surface disturbances associated with the most recent renovation of the Garthright House by the National Park Service in 1970.

Stratum 3 was composed of very dark grayish brown (Munsell 10YR 3/2) sandy loam containing modern beverage bottles, plastic, bottle tops, and wire nails (all discarded) dating the stratum to a recent deposition. It was only about 0.15 feet thick.

Removal of Stratum 3 revealed Stratum 4, composed of uniformly mottled yellowish brown (Munsell 10YR 5/4), yellowish brown (Munsell 10YR 5/6), and dark gray (Munsell 10YR 4/1) sandy loam and clay loam soils. It did not have the appearance of a recent disturbance, nor did it contain any plainly visible modern artifacts. Rusted iron objects were slightly visible on the surface. The northern third of the unit contained a line of soft-brick paving (Figures 9 and 10). The bricks are uniformly 0.7 by 0.35 feet. The paving may have served as a landing for the west door as suggested in the 1880's photograph of the house, or may form a drain along the entire south wall since the bricks appear to continue outside of the unit in both directions both east and west.

Results: Excavation of a single test along the westernmost portion of a proposed drainage swale along the south margin of the Garthright House indicate the presence of an intact brick feature as well as an intect soil stratum associated with its historic occupation. From the single test it was impossible to determine the extent of either the feature and soil stratum. It is suspected that the stratum continues along the entire south margin of the structure. Additional testing is recommended to determine the effect of the proposed project on both the stratum and the brick paving.

Figure 9: Photograph of Test 1 Garthright House showing brick paving.

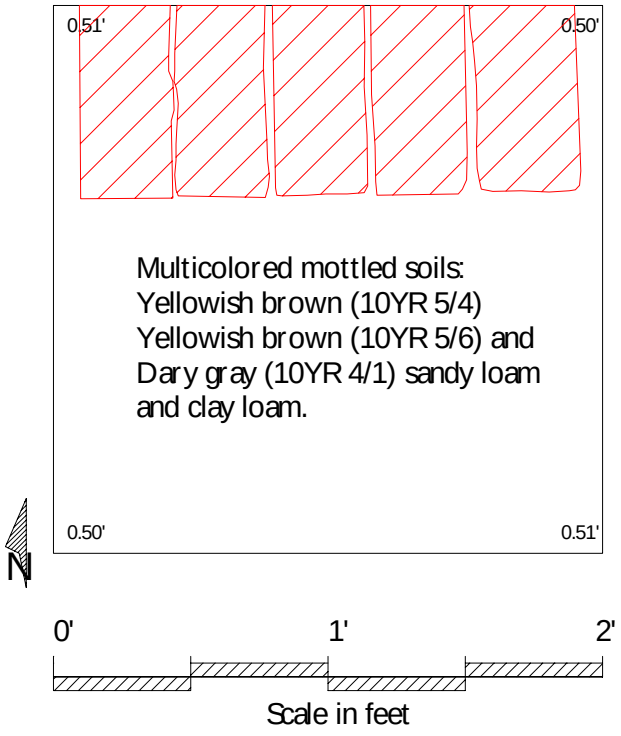

Figure 10: Measured drawing of Garthright House Test 1 showing brick paving.

4 COLD HARBOR TREE SCREEN

The proposed Cold Harbor tree screen is located along the east margin of the park unit (Figure 6), immediately adjacent to the above-ground remains of confederate earthworks and the existing park road (Figures 11 and 12). Proposed plantings will consist of semi-mature trees, requiring excavations of approximately three feet square for the largest, and approximately two feet square for the smaller examples.

Soils at the proposed project location have been mapped as Suffolk loamy fine sand, 2 to 7% slopes (USDA 1980: Sheet 59) Soils of this series are fine-loamy, siliceous, thermic Typic Hapludults. They are deep, well drained soils that have a subsoil that is mostly strong brown sandy clay loam. A typical pedon is described as (ibid: 118-119):

> Ap-0 to 9 inches: dary grayish brown (10YR 4/2) loamy fine sand.
> A2-9 to 14 inches: yellowish brown (10YR 5/6) sandy loam.
> B1t-14 to 18 inches: strong brown (7.5YR 5/6) sandy clay loam.
> B2t-18 to 36 inches: strong brown (7.5YR 5/6) sandy clay loam.
> B3-36 to 51 inches: yellowish brown (10YR 5/6) sandy loam.
> C-51 to 72 inches: strong brown (7.5YR 5/6) sandy loam.

To determine the effect of this project on potential archeological resources, a test unit at the proposed location of the largest tree and shovel tests at the proposed locations of the smaller trees were excavated. Excavation was conducted by the author on November 3, 1999.

Test Unit 1 was a 3' by 3' square unit oriented north/south at the proposed location of the magnolia tree. It had four strata (Figures 13 and 14):
Stratum A: 0 to 0.1 fbs - Very dark gray (10YR 3/1) silt loam.
Stratum B: 0.1 to 0.4 fbs - Brown (10YR 4/3) silt loam.
Stratum C: 0.4 to 1.1 fbs - Yellowish brown (10YR 5/4) sand loam. Stratum C contained concretions earth at its interface with Stratum D.
Stratum D: 1.1 fbs and below - Dark yellowish brown (10YR 4/6) sand.
No features or artifacts were identified in Test Unit 1 despite its proximity to the Confederate trenches.

Shovel Test 1 was located 48 feet north of Test Unit 1. Measuring 1.5 feet in diameter it is located at the proposed location of a red cedar in the center of an existing road swale. It had five strata:
Stratum A: 0 to 0.3 fbs - Very dark gray (10YR 3/1) silt loam.
Stratum B: 0.3 to 0.6 fbs - Pale brown (10YR 6/3) sand loam fill.
Stratum C: 0.6 to 1.0 fbs - Brown (10YR 5/3) sand loam buried A horizon.
Startum D: 1.0 to 1.9 fbs - Yellowish brown (10YR 5/4) sand loam.
Stratum E: 1.9 to 2.0 fbs - Dark yellowish brown (10YR 4/6) sand.

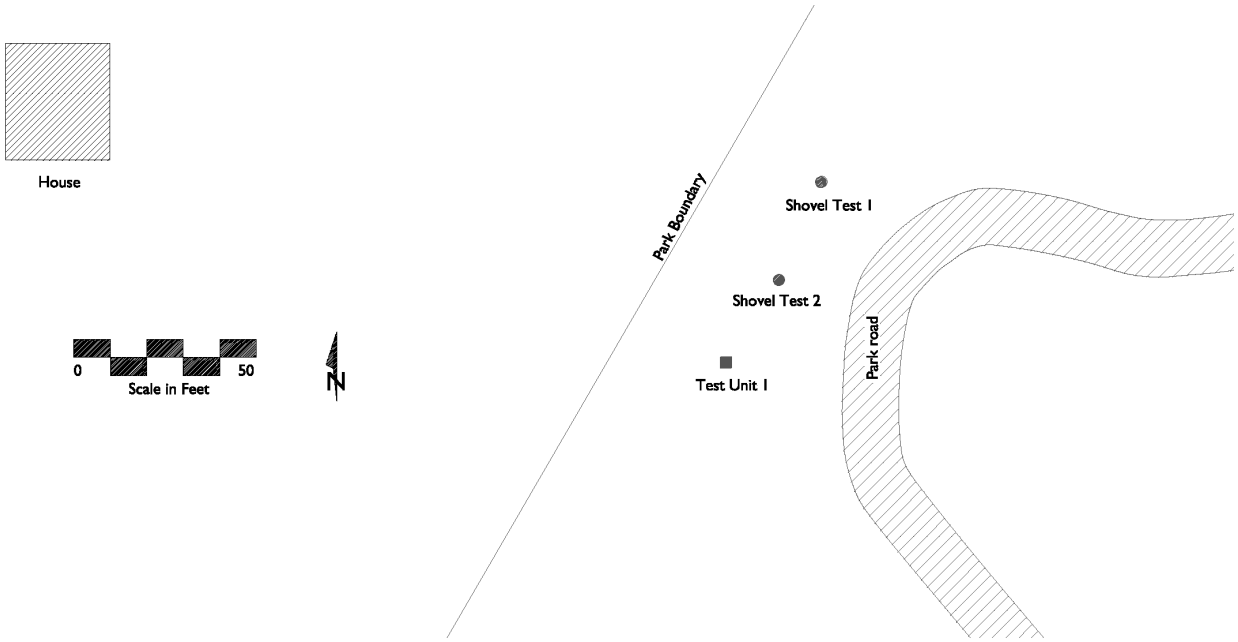

Figure 11: Location of archeological tests, Cold Harbor tree screen.

Figure 12: Photograph of location of proposed tree screen looking north showing Test Unit 1 in progress.

Figure 13: Photograph of north profile of Test Unit 1, Cold Harbor Unit tree screen.

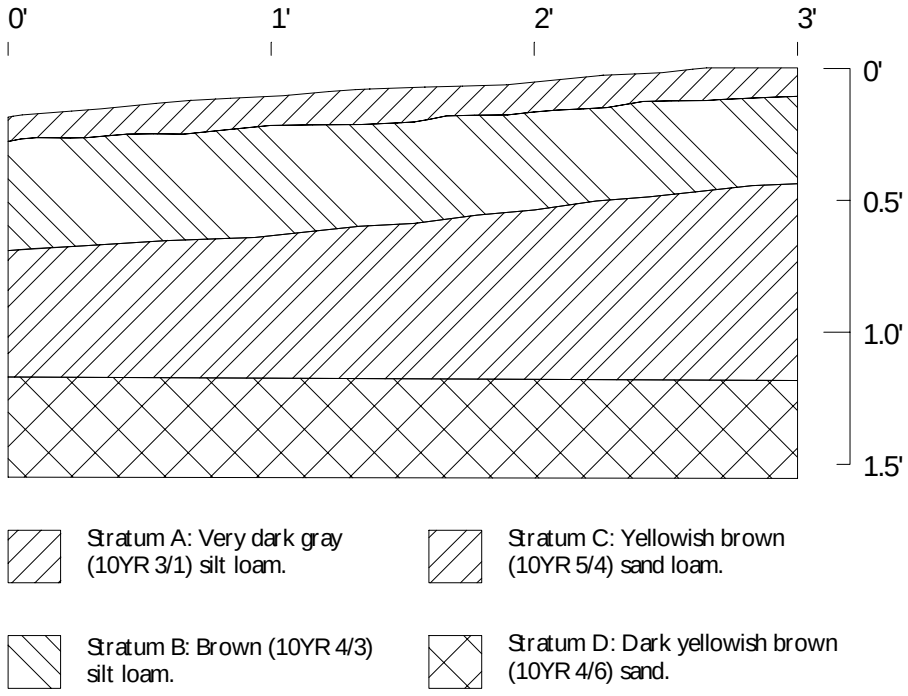

Figure 14: North profile of Test Unit 1, Cold Harbor tree screen.

The buried soil horizon appears associated with a swale constructed during installation of the existing park tour road and not a Civil-War era feature.

Shovel Test 2, located halfway between Shovel Test 1 and Test Unit 1 (25 feet east of Test Unit 1) measured 1.5 feet in diameter and had four strata:
Stratum A: 0 to 0.3 fbs - Very dark grayish brown (10YR 3/2) silt loam.
Stratum B: 0.3 to 0.4 fbs - Yellowish brown (10YR 5/6) grainy fill.
Stratum C: 0.4 to 0.7 fbs - Brown (10YR 5/3) sand loam buried A (or B) horizon.
Stratum D: 0.7 to 2.1 fbs and below - Dark yellowish brown (10YR 4/6) sand.
No artifacts or features were identified in the test.

Results: Excavation of one test unit and two shovel tests in the proposed locations of tree plantings at the Cold Harbor Unit did not identify any significant archeological resources that would be impacted by the proposed project. As such, installation of the tree screen will have "no effect" on archeological resources. No additional archeological activity is recommended.

5 SUMMARY AND CONCLUSIONS

Phase I archeological testing of three proposed projects within areas considered likely to contain significant archeological resources was conducted within the Cold Harbor and Beaver Dam Creek Units of Richmond National Battlefield Park. Testing at the Beaver Dam Creek Unit indicated that removal of the existing brick overlook will have "no effect" on intact archeological resources. Testing at the Cold Harbor Unit for installation of a tree screen also did not identify any significant archeological resources and will have "no effect". Testing at the proposed location of a drainage swale at the Garthright House, also at the Cold Harbor Unit, revealed the presence of a paving feature within a probable historic stratum. The date of this stratum is uncertain since it was not excavated and had no obvious modern intrusions into it. Phase II archeological testing is recommended for this project to determine its effect prior to additional design.

REFERERENCES CITED

U.S. Department of Agriculture

1980 *Soil survey of Hanover County, Virginia*. U.S. Department of Agriculture, Blacksburg, Virginia.